

b.) Remarks

Claim 1 has been amended in order to recite the present invention with the specificity required by statute. The subject matter of the amendment may be found in the specification as filed, *inter alia*, at page 37, lines 28 et seq. Accordingly, no new matter has been added.

The Examiner has required submission of corrected formal drawings. Such has been attended to in the paper dated September 2, 2003. Confirmation of the same is respectfully requested in the next PTO communication.

Claim 1 is rejected under 35 U.S.C. §103(a) as being obvious over Morimoto in view of Metz, both of record. In the Office Action, the Examiner acknowledges Morimoto does not teach a bypass pipe to equalize pressure between the cylindrical body and dispersion chamber but argues such is taught by Metz (bypass pipe 38) and contends it would have been obvious to include such in Morimoto so as to ensure the dispersion chamber pressure does not exceed operable parameters. This rejection is respectfully traversed.

At the outset, Applicants wish to acknowledge that claims 2-4 are objected to only as being dependent upon a rejected base claim and would be allowable if rewritten in independent form. The Examiner's assistance in expediting the prosecution of this application by examining separately the subject matter of Applicants' dependent claims is gratefully appreciated.

As the Examiner will appreciate, Metz' bypass pipe (38) has a regulator (17) to reduce pressure in the conduit when the pressure caused by the pump exceeds a present limit. That is to say, Metz' bypass pipe (38) equalizes the pressure only when the pressure reaches a

preset value. Such is required by Metz in order to maintain the in-line pressure of feed material at spray nozzle at the present limit (column 4, lines 13-18). In other words, Metz does not function properly without regulator (17). See column 5, lines 41-52.

In contrast, the bypass pipe recited in amended claim 1 does not operate only when pressure reaches some preset value. That is, the bypass pipe in claim 1 functions to allow air to freely move between the cylindrical body and the dispersion chamber so as to always equalize the pressure all during spraying operation, e.g., irrespective of pressure. As a result, as seen in Fig. 18. and as discussed in the specification (see page 67, lines 23 et seq.), the present invention very quickly after start-up delivers a highly steady amount of powdered material. Not only is this optimal result of clear utility to those of ordinary skill, such is plainly unobvious in view of the prior art. In fact, the proposed combination of prior art cannot even achieve this result.

For instance, by the proposed combination of Metz' bypass pipe with Morimoto, differences between the pressure in the cylindrical body and the pressure in the dispersion chamber are caused and air will pass in and out through the penetrating aperture. Therefore, Morimoto's elastic membrane (3) inflates into the cylindrical body (upper direction) or the dispersion chamber (lower direction) to equalize pressure in the cylindrical body and the dispersion chamber, and reduces the vibration caused by the positive pulsating vibration air. Therefore, the amount of powder material discharged from the penetrating aperture is reduced, resulting in varying powder spraying amounts.

These are the very deficiencies that are overcome by the present invention.

In view of the above amendments and remarks, Applicants submit that all of the

Claims 1-10 remain presented for continued prosecution, claims 5-10 having been allowed and claims 1-4 now being in allowable condition as well. Accordingly, allowance of this application and prompt passage to issue are earnestly solicited.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Lawrence S. Perry", is written over a horizontal line.

Attorney for Applicants

Lawrence S. Perry

Registration No. 31,865

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

NY_MAIN 381029v1